JAN 21 2005

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1-16 (Canceled)

17. (Currently Amended) A method for automated image analysis of a plurality of biological samples, comprising:

(a) providing a plurality of biological samples to be analyzed;

(b) automatically scanning the plurality of biological samples at a plurality of different positions with different coordinates;

(c) automatically obtaining an image at each of said different coordinates to produce different images from different locations; ~~and~~

(d) automatically reconstructing an image of the plurality of samples from the obtained different images comprising pairing consecutive-corresponding images such that a reconstructed image of the plurality of samples is obtained; and

(e) processing the reconstructed image to automatically identify a candidate object or area of interest.

18. (Cancelled)

19. (Previously Presented) The method of claim 17, wherein the reconstructed image is obtained by pairing spatially adjacent and different images of the plurality of samples.

20. (Currently Amended) The method of claim 17~~18~~, further comprising:

(a) automatically identifying a coordinate of the candidate object or area of interest in the reconstructed image; and

(b) automatically acquiring a selected image of the object or area of interest, at the location coordinates obtained from the reconstructed image, wherein the selected image includes image information from two different images obtained at two different coordinates during the scanning.

21. (Currently Amended) The method of claim 17~~18~~, wherein the candidate object or area of interest is detected by immunohistochemistry.

22. (Currently Amended) The method of claim 17~~18~~, wherein the candidate object or area of interest is detected by in situ hybridization.

23. (Currently Amended) The method of claim 17~~18~~, wherein the candidate object or area of interest is detected by a stain.

24. (Previously Presented) The method of claim 23, wherein the stain is a nucleic acid dye selected from the group consisting of hematoxylin, Giemsa stain, methyl green, Nuclear Fast-Red, Hoechst 33342, Hoechst 33258, thiazole orange, DAPI,

ethidium bromide, propidium iodide, TOTO, YOYO-1, SYTOX Blue, SYTOX Green, 7-Aminoactinomycin, 9-Amino-6-chloro-2-methoxyacridine, and acridine homodimer.

25. (Previously Presented) The method of claim 23, wherein the object or area of interest is stained with a cytoplasmic dye such as eosin or Kleihauer-Betke cytochemical stain or a combination thereof.

26. (Currently Amended) The method of claim 17~~18~~, wherein the candidate object or area of interest is a cell specific marker.

27. (Previously Presented) The method of claim 26, wherein the cell specific marker is detected by a nuclear stain and counterstain.

28. (Previously Presented) The method of claim 26, wherein the cell specific marker is detected by immunohistochemistry, in situ hybridization, staining or a combination thereof.

29. (Previously Presented) The method of claim 17, wherein the reconstructed image is a digital image.

30. (Previously Presented) The method as in claim 17, further comprising:

operating an imaging system at a first magnification to obtain a first set of the different images and a first reconstructed image;

setting the imaging system at a second magnification greater than the first magnification to obtain a second set of the different images and a second reconstructed image;

using the first reconstructed image to identify a target therein; and

using the second reconstructed image to extract desired information about the target.

31. (Currently Amended) A computer program, residing on a computer-readable medium, for automated image analysis of a plurality of biological samples, comprising instructions to cause an automated system to:

(a) scan a plurality of biological samples at a plurality of different positions with different coordinates;

(b) obtain an image at each of said different coordinates to produce different images from different locations; ~~and~~

(d) reconstruct an image of the plurality of samples from the obtained different images comprising pairing consecutive-corresponding images such that a reconstructed image of the plurality of samples is obtained; and

(e) process the reconstructed image to automatically identify a candidate object or area of interest.

32. (Previously Presented) The computer program of claim 31, wherein the reconstructed image of the plurality of sample is a digital image.